

BASF Nutrition –
the healthy decision.

S.E.T. and ProSustain: How to realize consumer product sustainability



ProSustain™
Product Sustainability Standard



 **BASF**
The Chemical Company

Dr. Christoph Guenther, BASF SE,
Eco Labeling and Traceability Conference, 20.Jan 2011

■ Why Sustainability Now?

➤ Some Facts



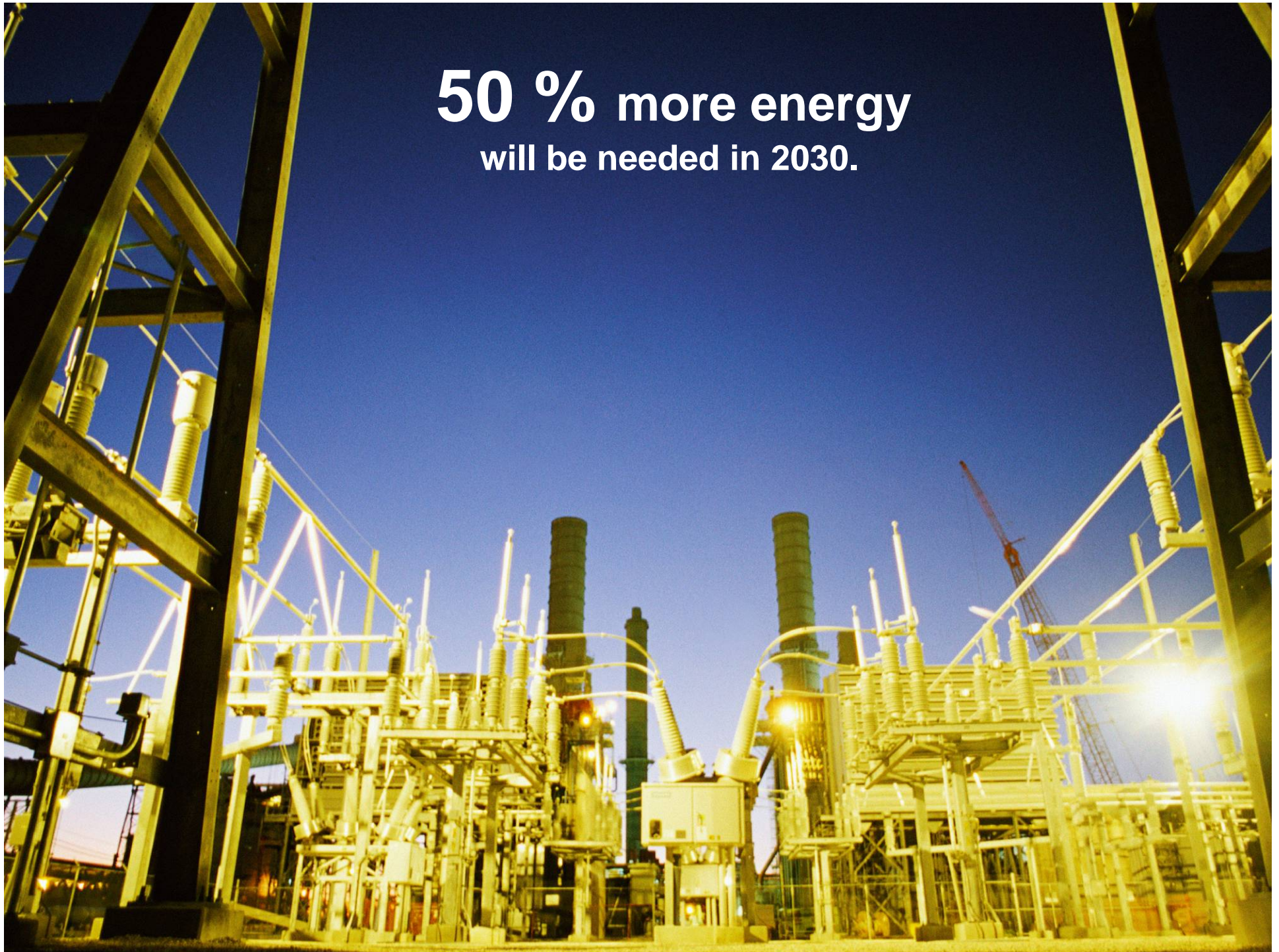
An aerial photograph of a wide, multi-lane city street filled with a dense flow of vehicles. The traffic includes a variety of cars, several buses (one yellow, one blue), and a few motorcycles. The street is flanked by lush green trees on the left and a sidewalk with more trees and a bus stop on the right. The scene is captured from a high angle, showing the organized chaos of urban transportation.

1,2 billion cars
will drive on Earth by 2020.

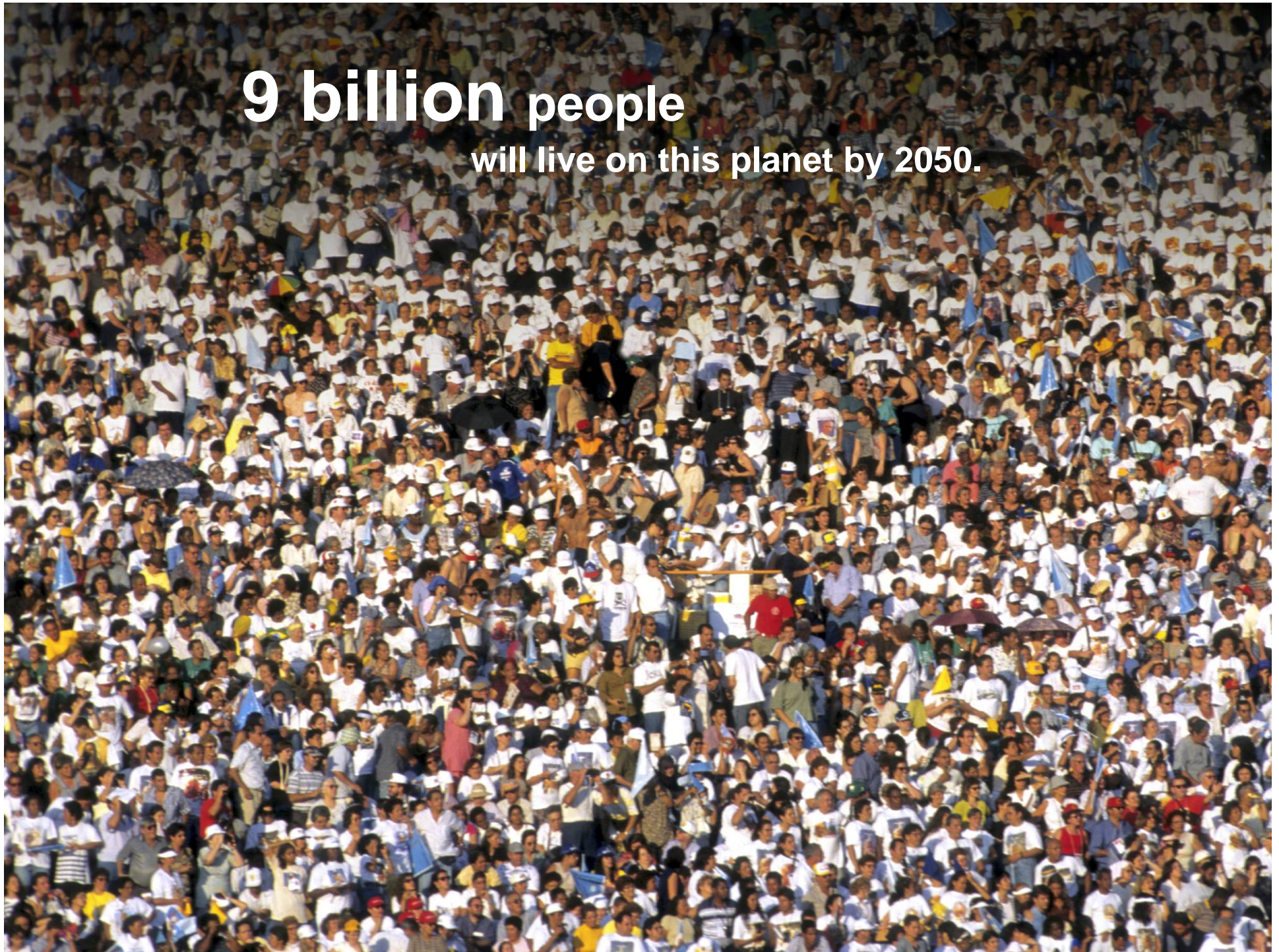
67 % of the world population
will live in cities by 2025.



50 % more energy
will be needed in 2030.



9 billion people
will live on this planet by 2050.



In 2050 we need

70% more food



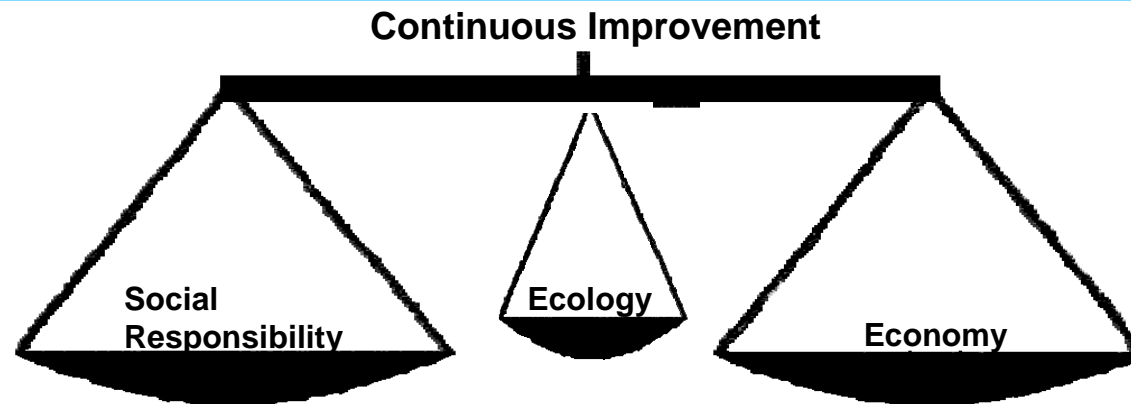
The Main Question:

How to feed and create an acceptable living standard for 9 billion people without destroying nature?

Consequence:

We have to act sustainable!!

What does sustainability mean?



Gro Harlem Brundtland



“Sustainable development is **development** that meets the **needs of the present** without compromising the ability of **future generations** to meet their own needs.



This definition implies more than ecology but also economic and social factors!

■ Reaction in the food market



Examples of sustainability claims of retailers

- Tesco (UK) labels CO2 footprint on some consumer goods
- Casino (FR) prints already CO2 values on customer receipts for all products shopped
- WalMart (US) wants to install sustainability indices with their consumer goods
- REWE (DE) started with the ProPlanet products
 - Like “Strawberries from water saving agriculture” and many more products
 - Wants to offer sustainably produced meat
 - Asks for a sustainable development with conventional products
- Albert Heijn (NL) introduced “Better Leven” Brand
 - Animal welfare
- dm market (german drugstore) introduced eco efficient diapers

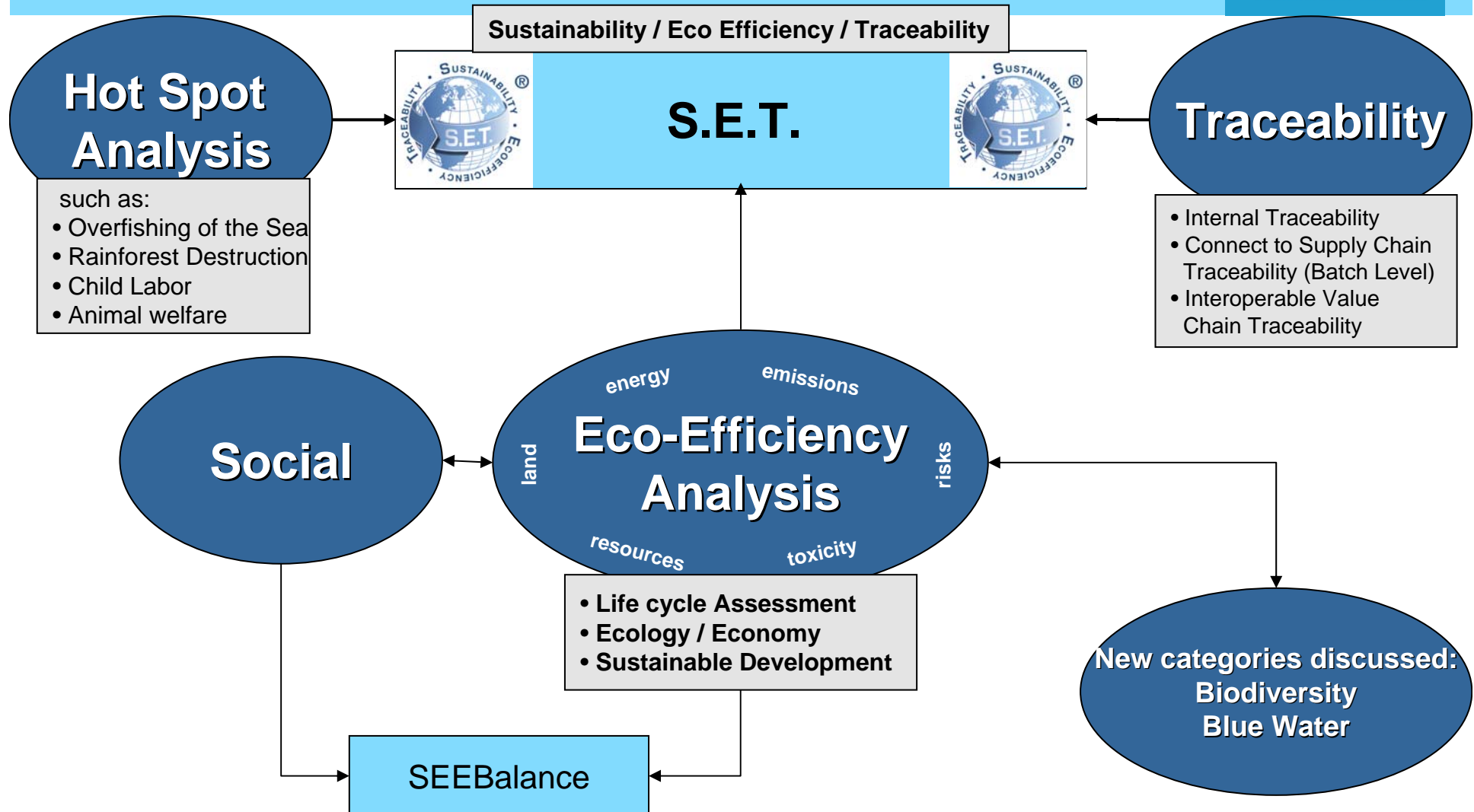


■ BASF answer to sustainability movements in the food value chain:

S.E.T. Initiative



S.E.T. Tools:



What is the eco efficiency analysis?

- **Ecological and economic aspects** are compared to alternative products or processes with equal weight in the assessment to fulfill the **customer benefit**.
- The products are analyzed from **different angles** with a „**cradle-to-grave**“-**approach** based on LifeCycleAnalysis-methodology (**including the use phase**).
- **(Future) scenarios** and effects of various action options are presented.
- Eco efficiency analysis (EEA) is a **standard** tool in the **BASF Group**; more than 400 analyses have been carried out.
- EEA of BASF is indepently certified by third parties:



Transparency with Traceability



GTNet® from TraceTracker

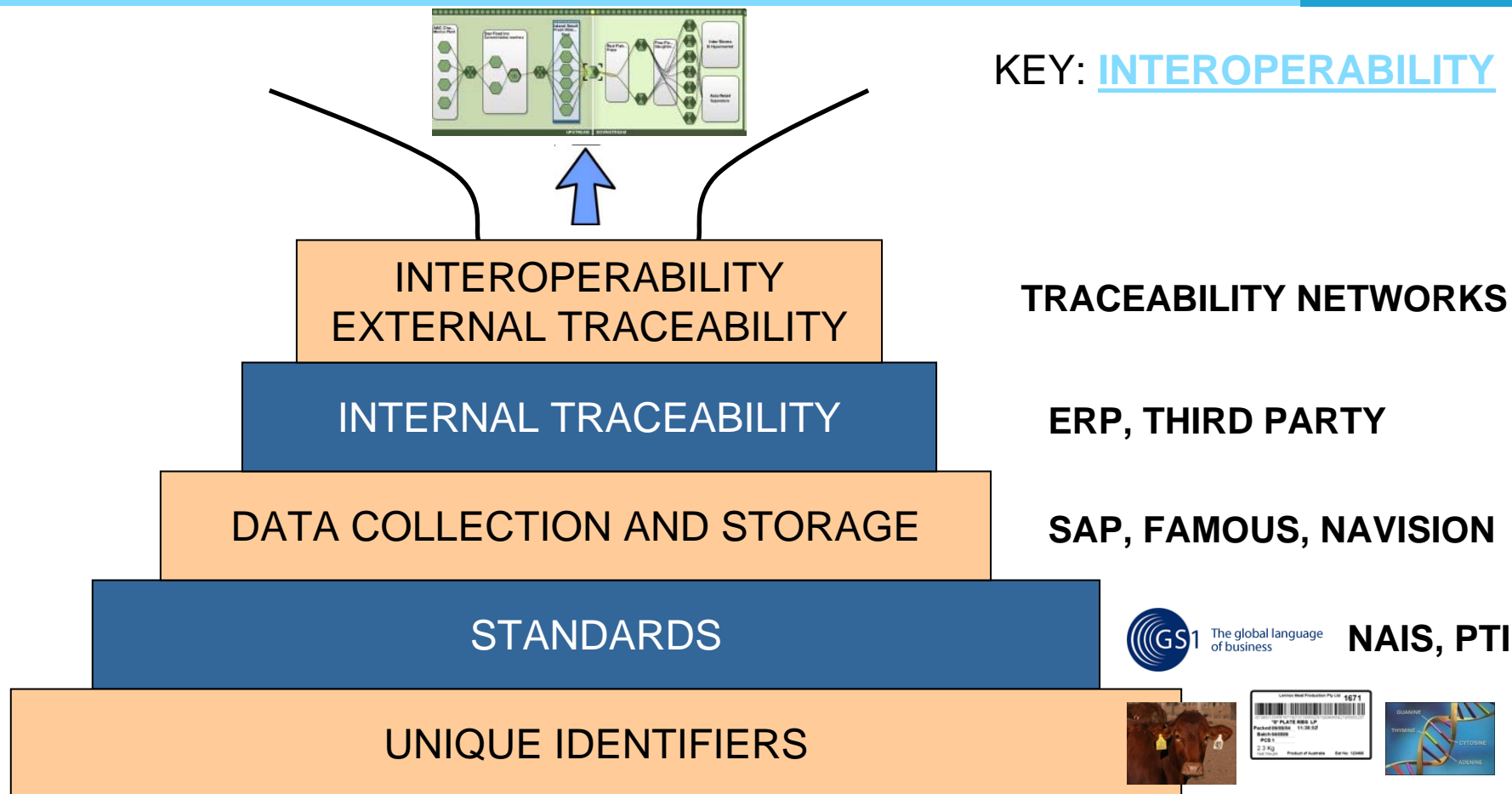


- GTNet® is a subscription-based software provided by the Norwegian company TraceTracker.
- BASF Nutrition has been tracing its ingredients since 2005 through this network.

More information about GTNet® is available at <http://www.tracetracker.com>



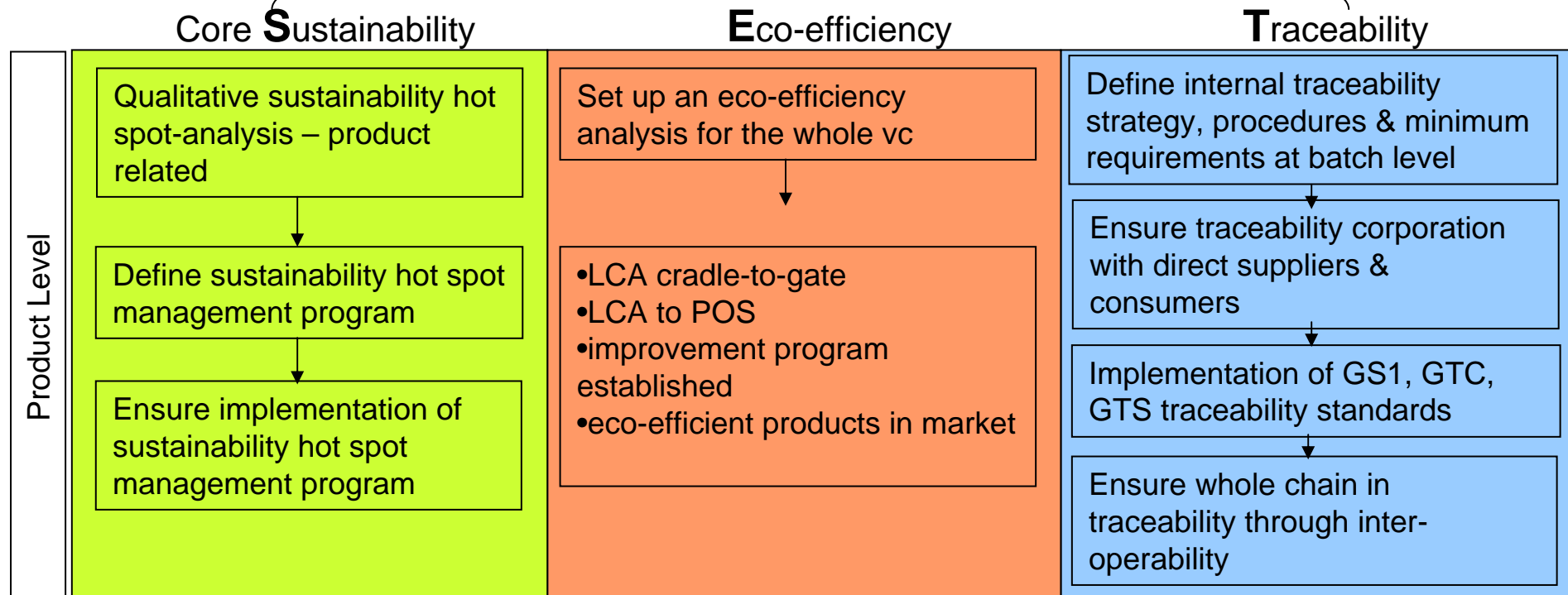
Traceability Building Blocks



How to create a S.E.T. Product?

Select end product → Define Value chain → Select members → Detect „Brand Owner/producer“

Eligibility requirements for brand owner/producer, Product Sustainability Management & Traceability System for brand owner/producer

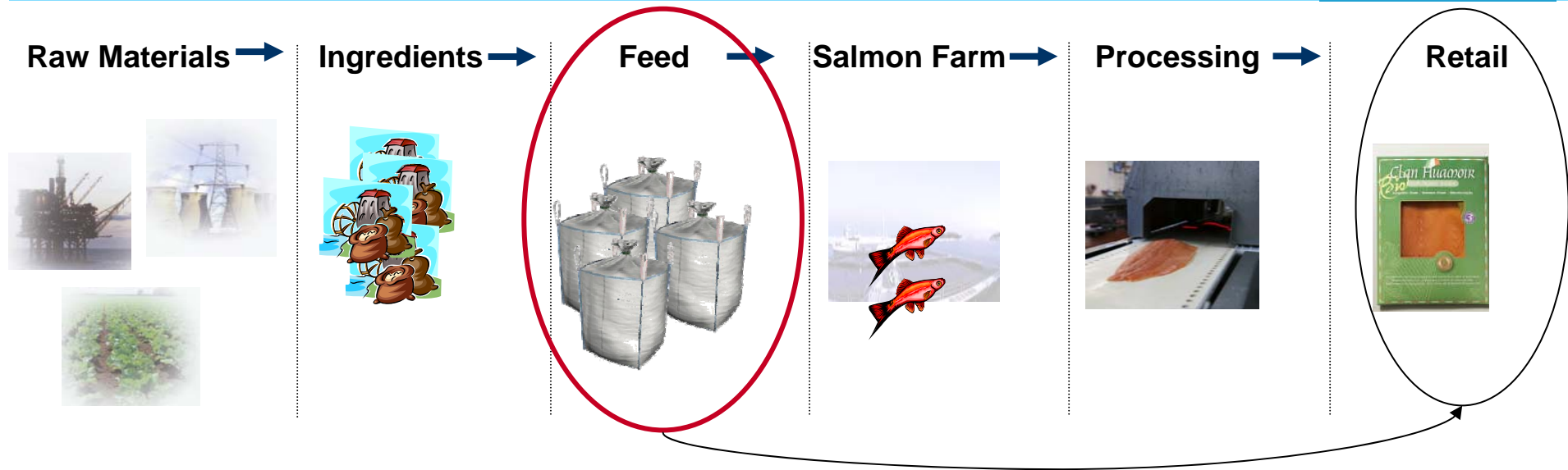


EEA Example: Feeding and growing salmon



Example: Value chain farmed fish

80% of ecological impact of salmon product: Feed.



Take out: If fish feed becomes more sustainable, this will have a major impact on the end product's sustainability.

Focus: How to make fish feed more sustainable?

Analysis for Sustainability Optimization

Example: Fish production

Determine demand-specific benefit

Production of 1000 kg of Salmon in the saltwater phase in Western Norway by growing from 100 g to 4000 g of harvesting weight in cage of 15000 cbm

Define comparable products

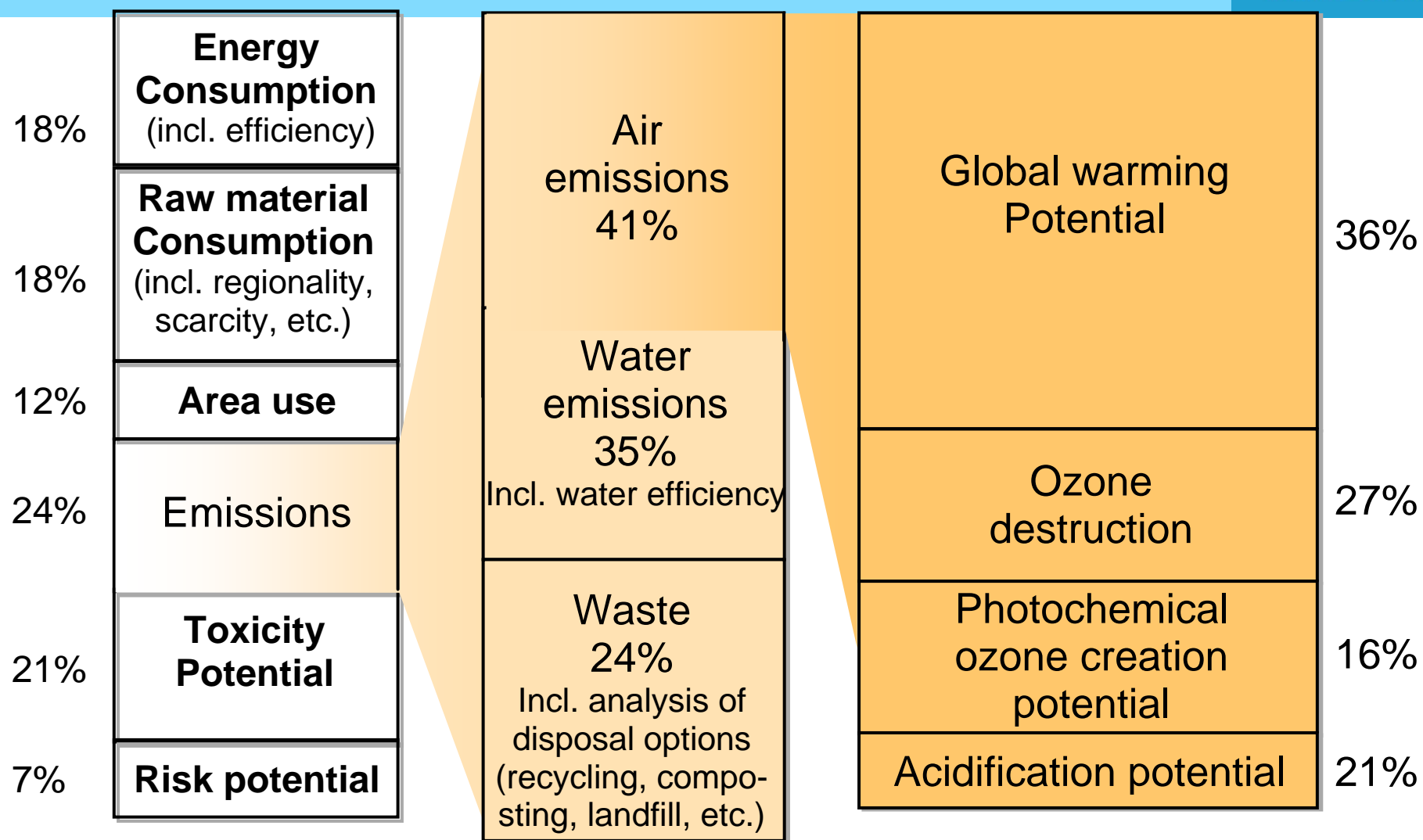
Industrial Standard, 2003

Marine Diet

High Quality, mainly vegetarian

Least Costs (LC), mainly vegetarian

Eco-efficiency analysis: Determination of environmental impact



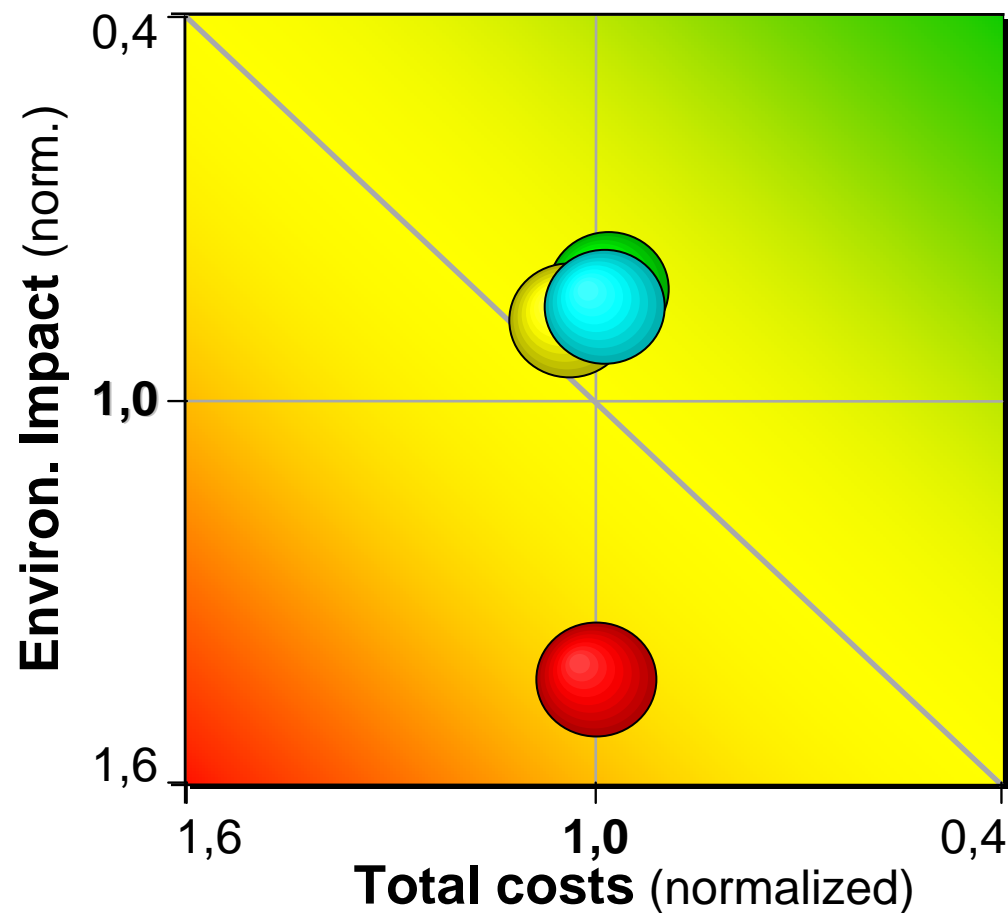
Analysis for Sustainability Optimization

Example: Fish production

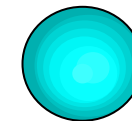
**Industrial
Standard 2003**



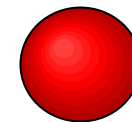
**High Quality,
mainly vegetarian**



**Least Costs (LC),
mainly vegetarian**



Marine Diet



How a Feed Company Uses the BASF Eco-Efficiency Analysis

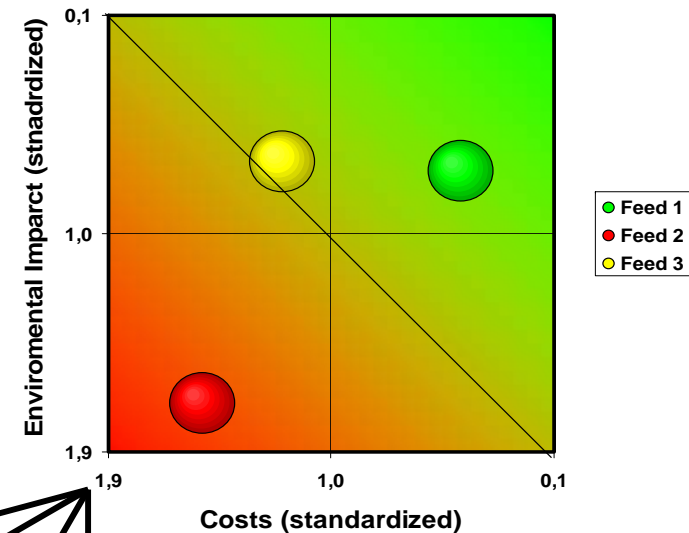
Linear Optimization at Feed Factory

Calculation for different feed compositions

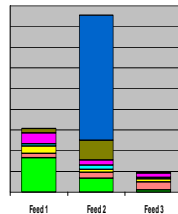
Feed 1
Feed 2
Feed 3

Calculation via online portal:
(Eco Efficiency Manager)

Eco Efficiency Portfolio



Ressources



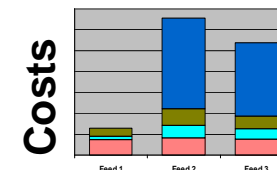
Energy used

Emissions

Risks / Toxicity

Land use

Costs (standardized)



Ecological data for feed ingredients (e.g. fish oil)

Example in salmon:

The screenshot displays the BIOSUSTAIN website interface. At the top, the BIOSUSTAIN logo is shown next to the text "BIOMAR SUSTAINABLE DEVELOPMENT". Below this is a navigation bar with tabs: INTRO, HOME (highlighted), BASIC, SUSTAINABLE RAW MATERIALS, OPTIMISED SUSTAINABILITY, and ABOUT BIOSUSTAIN. The main content area features a large pyramid diagram representing the hierarchy of sustainability. The pyramid is divided into four main levels, each with a corresponding text box to its right:

- EEA (Eco-Efficiency Analysis)**: The top level, featuring a globe icon. Text: "The purpose of EEA (Eco-Efficiency Analysis) is to harmonize economy and ecology. Eco-Efficiency Analysis is applied to minimize resource and energy consumption in producing our products and to keep emissions as low as possible." A "Read more" button is located below this text.
- Optimised sustainability**: The second level from the top. Text: "BioSustain provides tools and methods to measure sustainability of the whole value chain, and to enable sustainability improvement through optimisation of feeds, farming, processing and transportation to market."
- Sustainable raw materials**: The third level from the top. Text: "The BioSustain programme requires sustainable sourcing. Suppliers must follow adequate standards and guidelines."
- Basic**: The fourth level from the top. Text: "BioMar companies use certified management systems with improvement programmes and follow different guidelines; e.g. on social responsibility."

At the base of the pyramid is the text "Legal compliance". Below the pyramid, a disclaimer states: "Disclaimer: Valid for BioMar North Sea only". A prompt at the bottom of the pyramid reads: "Click on a level to learn more".

For an interactive demo press button:

www.biosustain.no

■ Certification of Product Sustainability



ProSustain: Product Sustainability Standard



ProSustain™
Product Sustainability Standard

Helping better products grow in the marketplace
Public version



ProSustain Standard



- ProSustain is a product sustainability standard
 - Developed by DNV and BASF
- ProSustain is vertical, generally available
 - Asks for transparent and measurable sustainability
 - Induces sustainable development
 - Is the ideal complement to horizontal standards like IFS, GlobalGAP, BRC, etc...
- BASF's S.E.T. initiative helps complying with the ProSustain Product Sustainability standard



Structure of ProSustain



■ Part I: Eligibility requirements

- Applicable to **organizations** seeking to participate in the ProSustain™ certification scheme

■ Part II: Product Sustainability Management

- Applicable to organizations seeking to certify their **product sustainability management processes** and/or individual products against the ProSustain™ standard

■ Part III: Product Sustainability Performance

- Applicable to **individual products** seeking certification against the ProSustain™ standard

ProSustain Standard – Assessment results

Elements of the standard

Part I - Eligibility to join the Certification Scheme

- Overall score (%)
 - Gap analysis against minimum requirements (>50% of individual requirements)
 - Decision on eligibility
- (all results for internal use only)

Part II Product Sustainability Management

- Overall score (%)
 - Detailed scores for each focus area
 - Overall maturity rating
- 4: 85-100%
3: 70-85%
2: 50-70%
1: 30-50%
- (public: overall maturity rating, main findings, conclusions and recommendations)
(internal: detailed scores for each focus area)

Part III Individual Product Sustainability Performance

- Analysis and continual improvement*
- Overall score (%)
 - Detailed scores for each focus area
 - Overall maturity rating (as for Part II)
- Traceability*
- Detailed maturity ratings for each focus area
 - Overall maturity rating (1-4 against traceability maturity criteria)
- (public: overall maturity rating, main findings, conclusions and recommendations)
(internal: detailed scores/maturity ratings for each focus area)

Scope of the Assessment of the Traceability System

■ Scope of the assessment

- The assessment of the traceability system will be carried out specifically for the product being certified and focusing on the following areas.

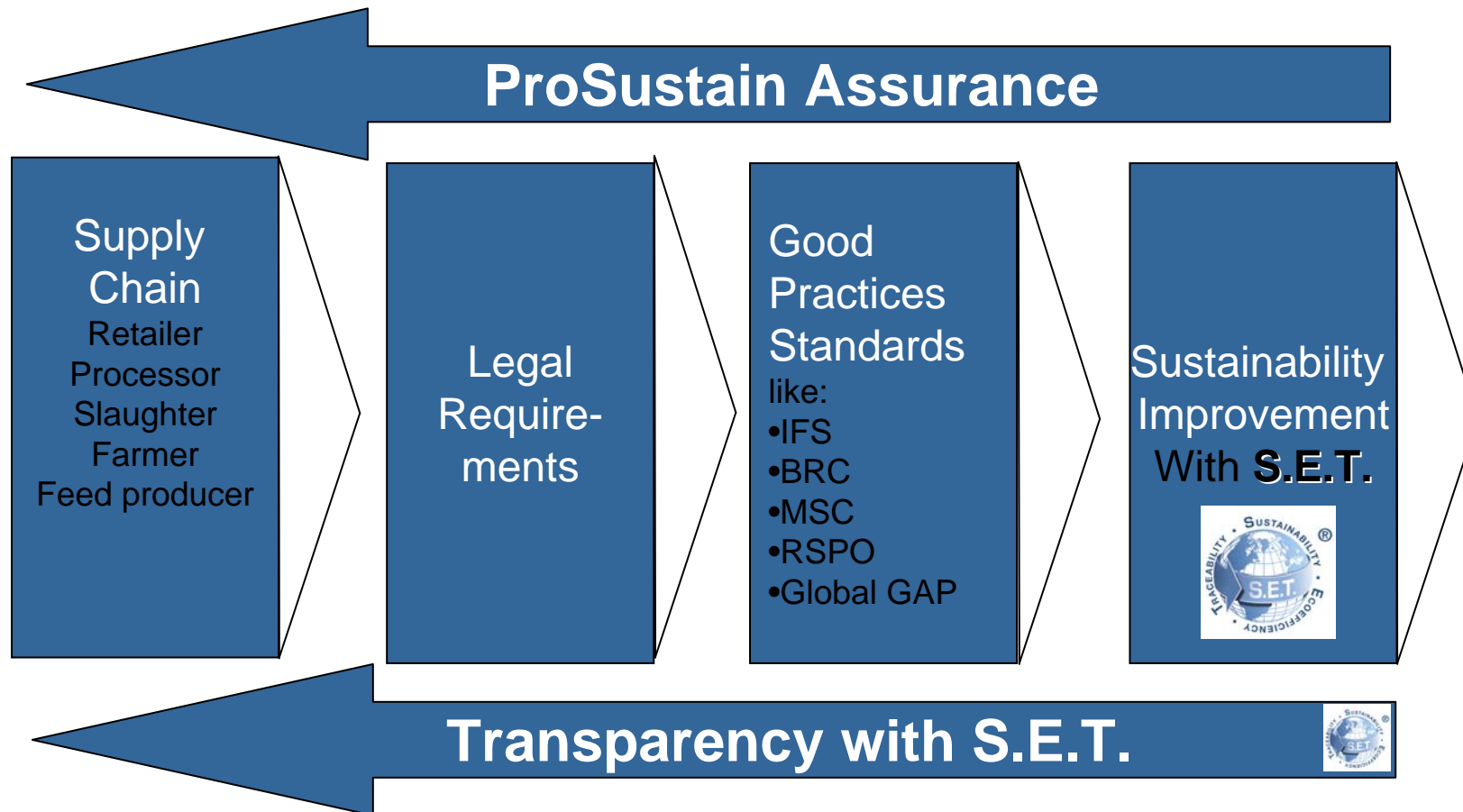
■ Focus areas

- Traceability system objectives
- Definition of products
- Supply chain placement
- Establishment of procedures
- Material flow
- Documentation requirements
- Structure and responsibilities
- Training
- Supply chain coordination
- Monitoring
- Internal external audit

Conclusion



S.E.T. meets ProSustain



S.E.T. helps to manage sustainability



The S.E.T. Initiative

Are you looking for ...

- A way to differentiate?
- Comprehensive product sustainability solutions?
- A viable platform for measuring and managing sustainability?
- A sustainability concept that will help you meet product sustainability standards such as ProSustain?
- Sustainability and traceability throughout the value chain, from ingredients to consumer goods?

If so, Use The S.E.T. Initiative of BASF

Thank you for your attention!!

